```
(FILE 'HOME' ENTERED AT 16:29:53 ON 03 JUN 2004)
FILE 'CAPLUS, USPATFULL, CA, CAOLD' ENTERED AT 16:30:10 ON 03 JUN 2004
FILE 'REGISTRY' ENTERED AT 16:30:17 ON 03 JUN 2004
         3 S CHROMIUM OXIDE/CN
         1 S CHROMIUM TRIOXIDE/CN
         1 S CHROMIUM SESQUIOXIDE/CN
FILE 'CAPLUS, USPATFULL, CA, CAOLD' ENTERED AT 16:32:06 ON 03 JUN 2004
    72176 S L2 OR L3
      2807 S L4 AND AMMONIUM
      1197 S L5 AND CATALYST
       292 S L4 (S) AMMONIUM
        16 S L7 AND AMMONIUM SALT
        8 DUP REM L8 (8 DUPLICATES REMOVED)
     1535 S CHROMIUM (S) AMMONIUM (S) CATALYST
      393 S L10 AND AMMONIUM SALT
      380 S L11 AND ?OXIDE?
        27 S L12 AND ?FLUORINAT?
        25 S L13 NOT L8
        25 DUP REM L14 (0 DUPLICATES REMOVED)
   29334 S CHROMIUM/CLM
       0 S CHROMIUM/CLMS
    193379 S CHROMIUM/TI
    51423 S AMMONIUM/CLM
     1792 S L16 AND L19
    169403 S OXIDE/CLM
      832 S L20 AND L21
    90522 S CATALYST/CLM
      282 S L22 AND L23
    176480 S SALT/CLM
      126 S L24 AND L25
    12057 S AMMONIUM SALT/CLM
       47 S L26 AND L27
        46 S L28 NOT L15
        46 S L29 NOT L8
        46 DUP REM L30 (0 DUPLICATES REMOVED)
     1695 S CHROMIUM (P) AMMONIUM (P) CATALYST
       13 S CHROMIUM OXIDE (P) AMMONIUM SALT (P) CATALYST
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L1

L2

L3

L4

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L6

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L8

L9

L10

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L12

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L14

L15 L16

L17

L18

L19

L20

L21 L22

L23

L24

L25 L26

L27

L28 L29

L30

L31

L32

L33

L34

L35

11 S L33 NOT L8

11 DUP REM L34 (0 DUPLICATES REMOVED)

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ANSWER 6 OF 11 USPATFULL on STN
       83:34173 USPATFULL
       Solubilized chromium salt in particulate support
       Hawley, Gil R., Bartlesville, OK, United States
       McDaniel, Max P., Bartlesville, OK, United States
       Phillips Petroleum Company, Bartlesville, OK, United States (U.S.
       corporation)
                               19830809
       US 4397766
PΙ
                               19820126 (6)
       US 1982-342874
AΙ
       19990608
DCD
       Division of Ser. No. US 1979-103686, filed on 14 Dec 1979, now patented,
RLI
       Pat. No. US 4333860
       Utility
DT
       Granted
FS
EXNAM Primary Examiner: Shine, W. J.
       Number of Claims: 10
CLMN
       Exemplary Claim: 1
ECL
       No Drawings
DRWN
LN.CNT 377
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       A chromium salt such as ammonium chromate or ammonium dichromate, which
       is normally insoluble in nonaqueous solvents which do not easily
       rehydrate the silica surface is solubilized, for instance by treating it
       with a crown ether, and impregnated onto a particulate support from a
       nonaqueous solvent which does not easily rehydrate the silica. The
       resulting composition is then activated in an oxygen ambient such as air
       in a conventional manner and then utilized as a catalyst for
       polymerization reactions such as the production of polyolefins.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L35 ANSWER 9 OF 11 USPATFULL on STN
       82:27797 USPATFULL
ΑN
       Solubilized chromium salt in polymerization catalyst
ТT
       Hawley, Gil R., Bartlesville, OK, United States
IN
       McDaniel, Max P., Bartlesville, OK, United States
       Phillips Petroleum Company, Bartlesville, OK, United States (U.S.
PΑ
       corporation)
       US 4333860
                               19820608
PΤ
       US 1979-103686
                               19791214 (6)
ΑТ
DT
       Utility
FS
       Granted
EXNAM Primary Examiner: Peters, G. O.
CLMN
       Number of Claims: 11
       Exemplary Claim: 1
ECL
DRWN
       No Drawings
LN.CNT 385
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       A chromium salt such as ammonium chromate or ammonium dichromate, which
       is normally insoluble in nonaqueous solvents which do not easily
       rehydrate the silica surface is solubilized, for instance by treating it
       with a crown ether, and impregnated onto a particulate support from a
       nonaqueous solvent which does not easily rehydrate the silica. The
       resulting composition is then activated in an oxygen ambient such as air
       in a conventional manner and then utilized as a catalyst for
       polymerization reactions such as the production of polyolefins.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
```

L35 ANSWER 7 OF 11 USPATFULL on STN 83:1892 USPATFULL

Solubilized chromium salt in polymerization catalyst

Hawley, Gil R., Bartlesville, OK, United States

ΑN

TI

IN

```
McDaniel, Max P., Bartlesville, OK, United States
       Phillips Petroleum Company, Bartlesville, OK, United States (U.S.
PA
       corporation)
                               19830111
PΙ
       US 4368301
                               19810828 (6)
AΙ
       US 1981-297455
       Division of Ser. No. US 1979-103686, filed on 14 Dec 1979, now patented,
RLI
       Pat. No. US 4333860
       Utility
DT
FS
       Granted
EXNAM Primary Examiner: Levin, Stanford M.
       Number of Claims: 13
CLMN
       Exemplary Claim: 1
ECL
       No Drawings
DRWN
LN.CNT 387
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       A chromium salt such as ammonium chromate or ammonium dichromate, which
       is normally insoluble in nonaqueous solvents which do not easily
       rehydrate the silica surface is solubilized, for instance by treating it
       with a crown ether, and impregnated onto a particulate support from a
       nonaqueous solvent which does not easily rehydrate the silica. The
       resulting composition is then activated in an oxygen ambient such as air
       in a conventional manner and then utilized as a catalyst for
       polymerization reactions such as the production of polyolefins.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
    ANSWER 10 OF 11 USPATFULL on STN
1.35
       76:20138 USPATFULL
AN
       Catalyst support formed by adding acidic material to silica containing
TΙ
       Witt, Donald R., Bartlesville, OK, United States
IN
       Phillips Petroleum Company, Bartlesville, OK, United States (U.S.
PA
       corporation)
       US 3950316
                               19760413
PΤ
                               19740503 (5)
ΑI
       US 1974-466691
       Utility
ΤП
       Granted
FS
EXNAM Primary Examiner: Holler, Alan
       Number of Claims: 20
CLMN
       Exemplary Claim: 1
ECL
DRWN
       No Drawings
LN.CNT 355
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       Olefin polymers are made using a chromium oxide catalyst on a support
       formed by adding an acidic material to a silicate solution containing
       titanium. This catalyst is capable of producing a polymer of an olefin
       having a high melt index and is of particular utility in the production
       of such polymer in a particle-form process.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
    ANSWER 11 OF 11 USPATFULL on STN
L35
       76:6264 USPATFULL
AN
       Process for preparing unsaturated aldehyde having three to four carbon
TI
IN
       Oda, Yoshio, Yokohama, Japan
       Uchida, Keiichi, Yokohama, Japan
       Suhara, Manabu, Tokyo, Japan
       Morimoto, Takeshi, Yokohama, Japan
       Asahi Glass Company, Ltd., Tokyo, Japan (non-U.S. corporation)
PA
PΙ
       US 3936505
                               19760203
ΑI
       US 1973-334727
                               19730222 (5)
PRAI
       JP 1972-17653
                           19720222
       JP 1972-35725
                           19720411
```

7

JP 1972-37800 19720417

DT Utility

FS Granted

EXNAM Primary Examiner: Thomas, Jr., James O.; Assistant Examiner: Chan, Nicky

LREP Oblon, Fisher, Spivak, McClelland & Maier

CLMN Number of Claims: 4 ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 929

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB An unsaturated aldehyde having three to four carbon atoms is prepared by reacting the corresponding olefin with molecular oxygen in the vapor phase at a temperature of from 350° to 520° C in the presence of a metal oxide catalyst comprising the metallic components:

(a) molybdenum; (b) at least one metal selected from the group consisting of niobium and tantalum; and (c) at least one metal selected from the group consisting of tellurium, bismuth, cobalt, tungsten, indium, and titanium.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.